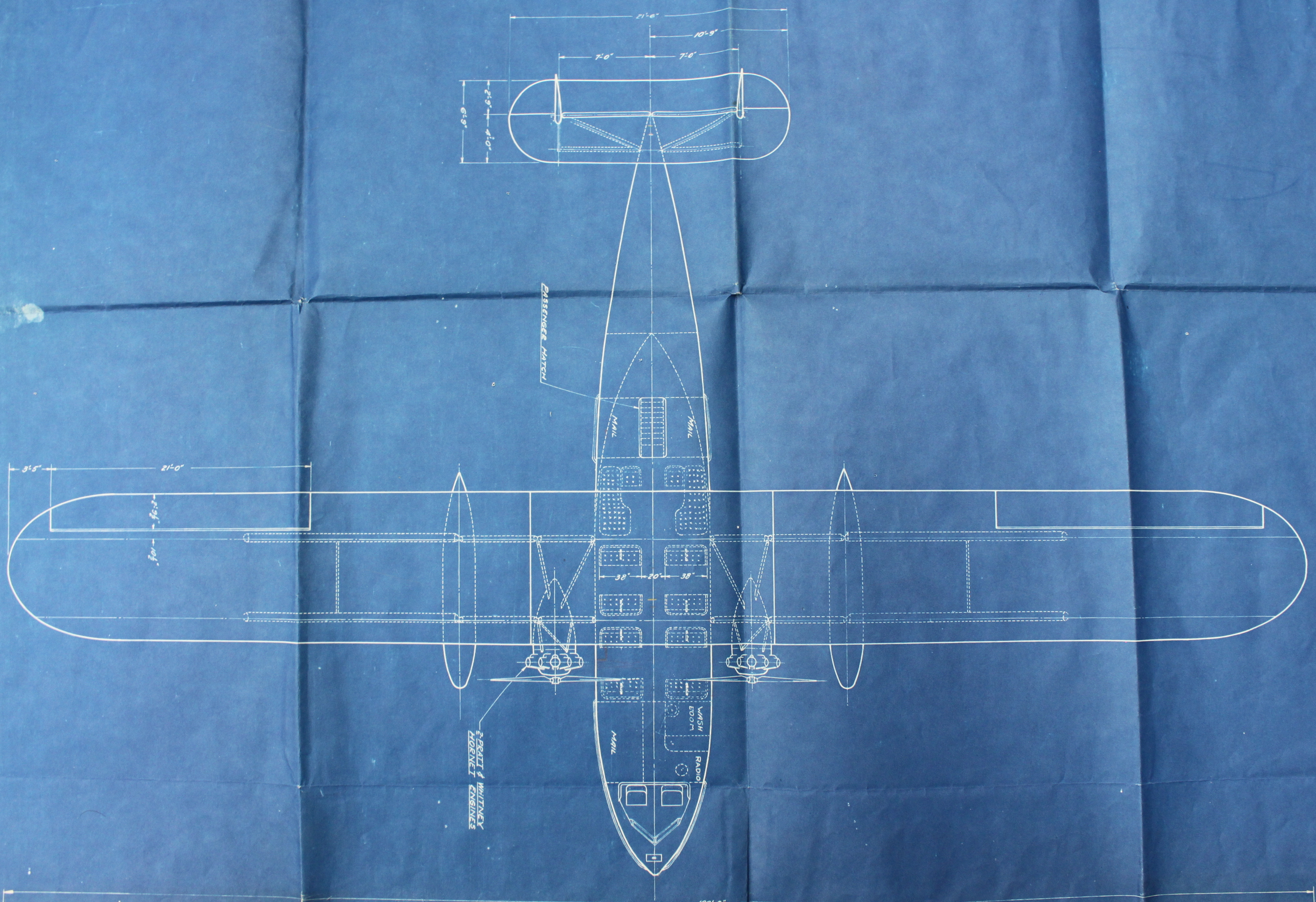
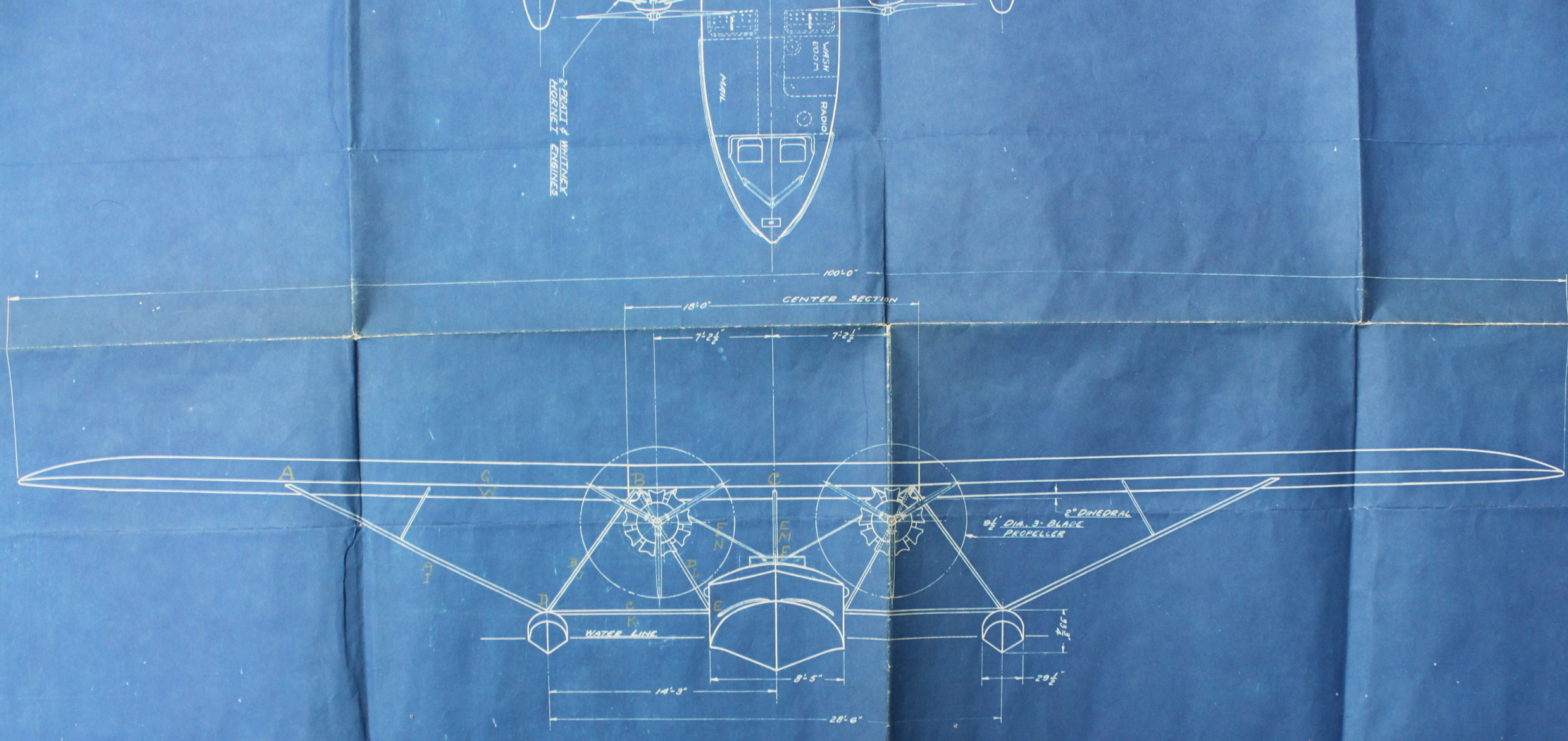
SCALE 1/48

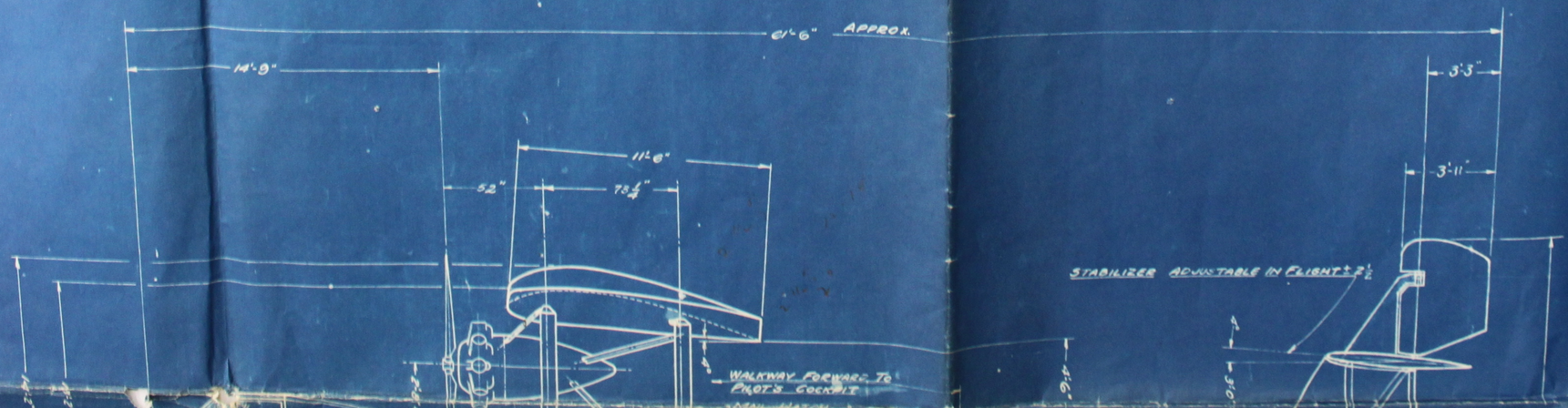
"THE COMMODORE"

MATERIAL	DRAFTSMAN	L. Te. Hall	4/5/39
SPEC'S. AN / NAVY NO.	Strength & Wt. Exam		
HEAT TREAT	CHECKED	Flader	9/13/38
FINISH	Approved & Released	LMLaddon	
REMARKS COMMERCIAL FLYING BOAT - MODEL 16			

CONSOLIDATED AIRCRAFT CORPN. DR'WG. NO. 16A001


21'-6"
10'-9"
7'-0"
7'-0"
6'-9"
2'-6"
2'-0"
PASSENGER HATCH
MAIL
MAIL
3'-5"
21'-0"
6'-3"
6'-0"
38"
20"
38"
WASH ROOM
MAIL
RADIO
2 PRATT & WHITNEY HORNET ENGINES
100'-0"
18'-0"
CENTER SECTION


2 PRATT & WHITNEY HORNET ENGINES
MAIL
WASH ROOM
RADIO
100'0"
18'0"
CENTER SECTION
7'2½"
7'2½"
A
G
W
B
C
E
N
E
M
F
L
A
I
D
C
K
E
2° DIHEDRAL
9½' DIA. 3-BLADE PROPELLER
WATER LINE
14'3"
8'5"
28'6"
4'3¾"
29½"


61'6" APPROX.
14'9"
11'6"
52"
78¾"
WALKWAY FORWARD TO PILOT'S COCKPIT
3'3"
3'11"
STABILIZER ADJUSTABLE IN FLIGHT ± 2½°
4'6"
3'0"

14'-3"

28'-6"

61'-6" APPROX.

14'-9"

11'-6"

52"

73¼"

3'-3"

3'-11"

STABILIZER ADJUSTABLE IN FLIGHT ± 2½°

4°

WALKWAY FORWARD TO PILOT'S COCKPIT

PANEL HATCH

4'-6"

3'-0"

15'-8"

14'-2" APPROX.

15'-2" APPROX.

6'-2" APPROX.

WATER LINE

16'-2"

25'-2¼"

15'-5½"

17'-10½"

58'-6¼"

ENGINEERING DATA

AREAS

WING- A.C. = 9.00

TOTAL WING AREA, INCL. AILERONS

CENTER SECTION

WING PANELS (2), INCL. AILERONS

TOTAL AILERON AREA

TAIL SURFACES-

TOTAL VERTICAL AREA

CENTER LOWER FIN

UPPER FIN (2)

RUDDERS (2), INCL. BALANCE

BALANCE ON EACH RUDDER

TOTAL HORIZONTAL AREA

STABILIZER

ELEVATOR

WEIGHTS

USEFUL LOAD-

CREW- PILOT, MECHANIC

FUEL & OIL

RADIO

PAY LOAD-

PASSENGERS (22) @

MAIL & BAGGAGE

WEIGHT EMPTY

STRUCTURE

POWER PLANT COMPLETE

FIXED EQUIPMENT

GROSS WEIGHT

PERFORMANCE

FULL SPEED

CRUISING SPEED

RATE OF CLIMB AT SEA LEVEL

SERVICE CEILING

POWER PLANT

2 PRATT & WHITNEY "WASP"

TOTAL HORSEPOWER

MISCELLANEOUS

WING AIRFOIL

CHORD

INCIDENCE

DIHEDRAL

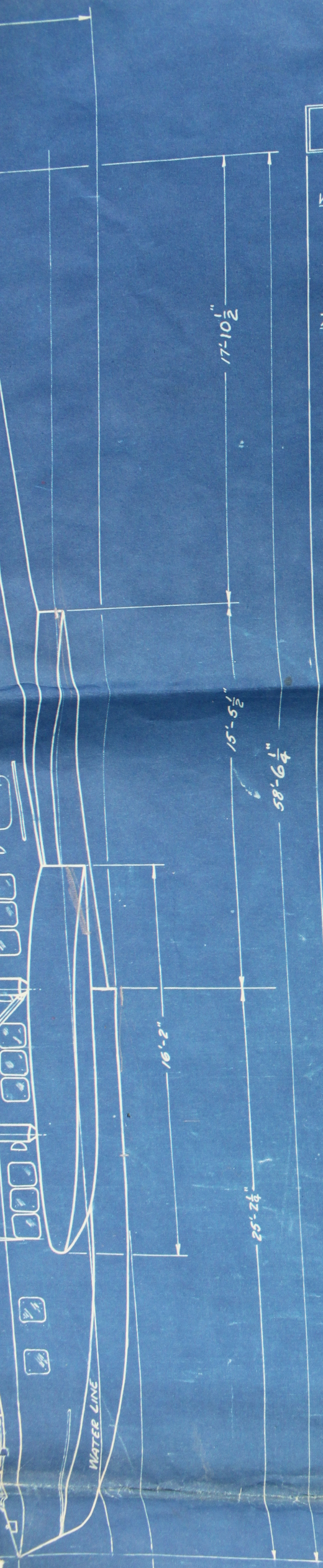
AILERON

TAIL AIRFOIL (FIN & RUDDER)

FIN SETTING

INCIDENCE OF STABILIZER

STABILIZER ADJUSTABLE IN FLIGHT



ENGINEERING DATA

AREAS

WING- A.R.=9.00		
TOTAL WING AREA, INCL. AILERONS	1110	Sq. Ft.
CENTER SECTION	207	" "
WING PANELS (2), INCL. AILERONS	903	" "
TOTAL AILERON AREA AFT OF HINGE	110	" "
TAIL SURFACES-		
TOTAL VERTICAL AREA	63.95	" "
CENTER LOWER FIN	14.75	" "
UPPER FIN (2)	9.00	" "
RUDDERS (2), INCL. BALANCE	40.2	" "
BALANCE ON EACH RUDDER	3.3	" "
TOTAL HORIZONTAL AREA	135.5	" "
STABILIZER	81	" "
ELEVATOR	54.5	" "

WEIGHTS

USEFUL LOAD-	7151	Lbs.
CREW- PILOT, MECHANIC & RADIO OPERATOR	510	"
FUEL & OIL	2175	"
RADIO	120	"
PAY LOAD-	4346	"
PASSENGERS (22) @ 170 LBS. EACH	3740	"
MAIL & BAGGAGE	606	"
WEIGHT EMPTY	10449	"
STRUCTURE	5590	"
POWER PLANT COMPLETE	2724	"
FIXED EQUIPMENT	2135	"
GROSS WEIGHT	17,600	Lbs.

PERFORMANCE

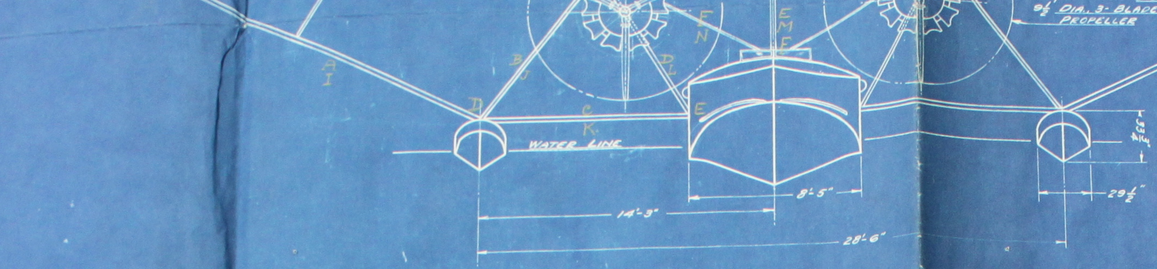
FULL SPEED	185	M.P.H.
CRUISING SPEED	100	M.P.H.
RATE OF CLIMB AT SEA LEVEL	755	Ft. per Min.
SERVICE CEILING	12,500	Ft.

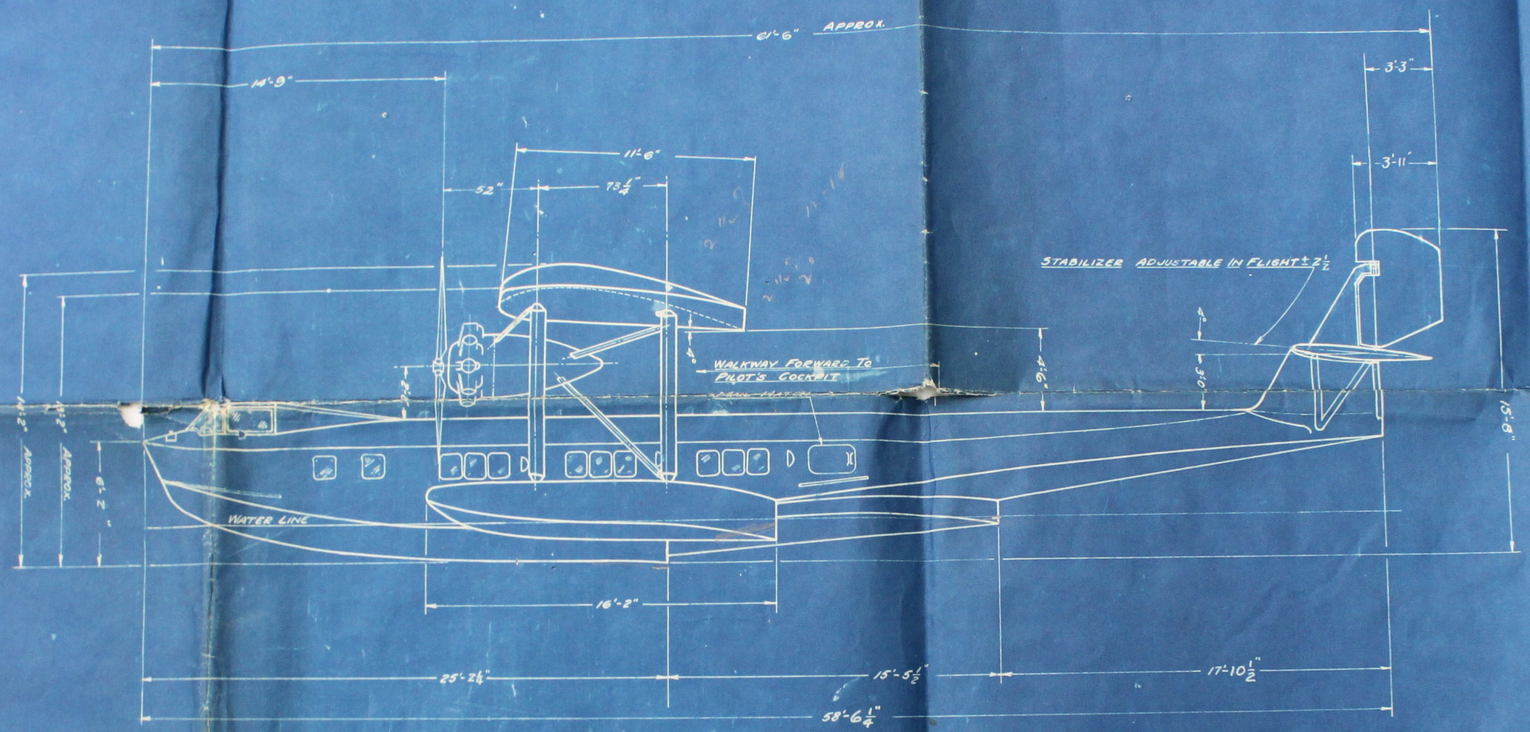
POWER PLANT

2 PRATT & WHITNEY "HORNET" ENGINES		
TOTAL HORSEPOWER	1150	H.P.

MISCELLANEOUS

WING AIRFOIL	GÖTTINGEN "398"
CHORD	11ft.-6 in.
INCIDENCE	+ 4°
DIHEDRAL	2°
AILERON	FRIESE TYPE
TAIL AIRFOIL (FIN & RUDDER)	50% GÖTTINGEN
FIN SETTING	0°
INCIDENCE OF STABILIZER	+ 4°
STABILIZER ADJUSTMENT	+2° IN FLIGHT





ENGINEERING DATA

AREAS

WING- AREA, INCL. AILERONS	1110	SQ. FT.
TOTAL WING AREA, INCL. AILERONS	207	" "
CENTER SECTION	203	" "
WING PANELS (2) INCL. AILERONS	112	" "
TOTAL AILERON AREA AFT OF HINGE		
TAIL SURFACES-	63.95	" "
TOTAL VERTICAL AREA	14.15	" "
CENTER LOWER FIN	2.00	" "
UPPER FIN (2)	4.02	" "
RUDDERS (2) INCL. BALANCE	3.2	" "
BALANCE ON EACH RUDDER		
TOTAL HORIZONTAL AREA	185.6	" "
STABILIZER	81	" "
ELEVATOR	54.5	" "

WEIGHTS

USEFUL LOAD-	7151	LBS.
CREW- PILOT, MECHANIC & RADIO OPERATOR	310	"
FUEL & OIL	2175	"
RADIO	140	"
PAY LOAD-	4346	"
PASSENGERS (22) @ 170 LBS. EACH	3740	"
MAIL + BAGGAGE	606	"
WEIGHT EMPTY	10412	"
STRUCTURE	5990	"
POWER PLANT COMPLETE	2784	"
FIXED EQUIPMENT	2138	"
GROSS WEIGHT	17600	LBS.

PERFORMANCE

FULL SPEED	196	M.P.H.
CRUISING SPEED	170	M.P.H.
RATE OF CLIMB AT SEA LEVEL	765	FT. PER MIN.
SERVICE CEILING	16,500	FT.

POWER PLANT

2 PRATT & WHITNEY "HORNET" ENGINES
TOTAL HORSE POWER 1180 H.P.

MISCELLANEOUS

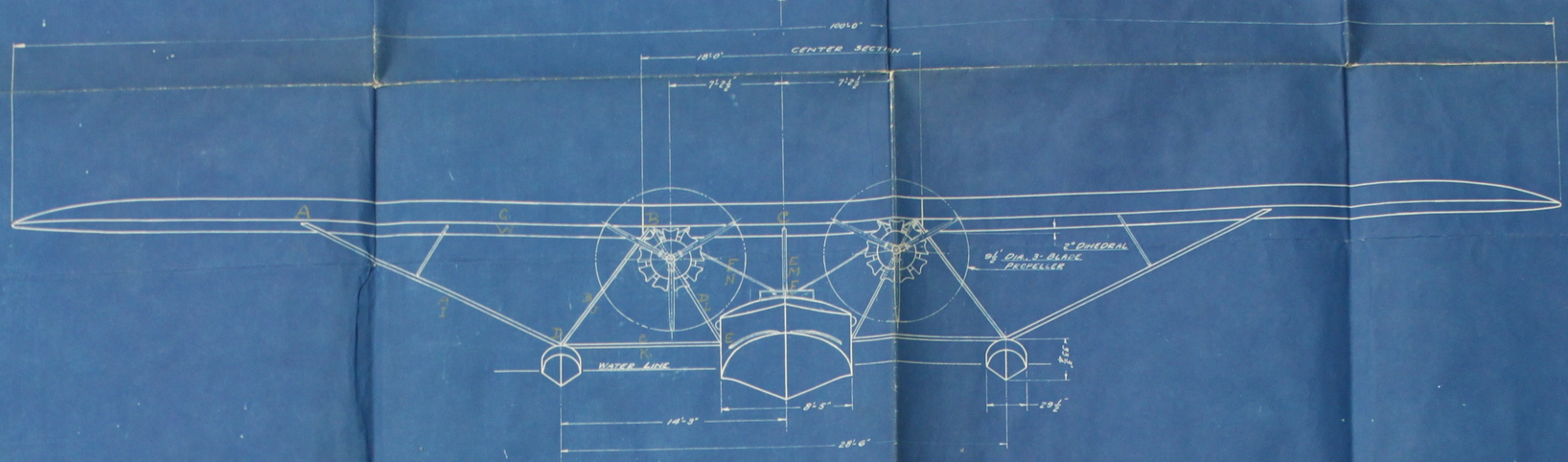
WING AIRFOIL	GÖTTINGEN "398"	
CHORD	102"-6.1m	
INCIDENCE	+1°	
DIHEDRAL	2°	
AILERON	CREASE TYPE	
TAIL AIRFOIL (FIN & RUDDER)	501 GÖTTINGEN	
FIN SETTING	0°	
INCIDENCE OF STABILIZER	+1°	
STABILIZER ADJUSTABLE	±2½° IN FLIGHT	

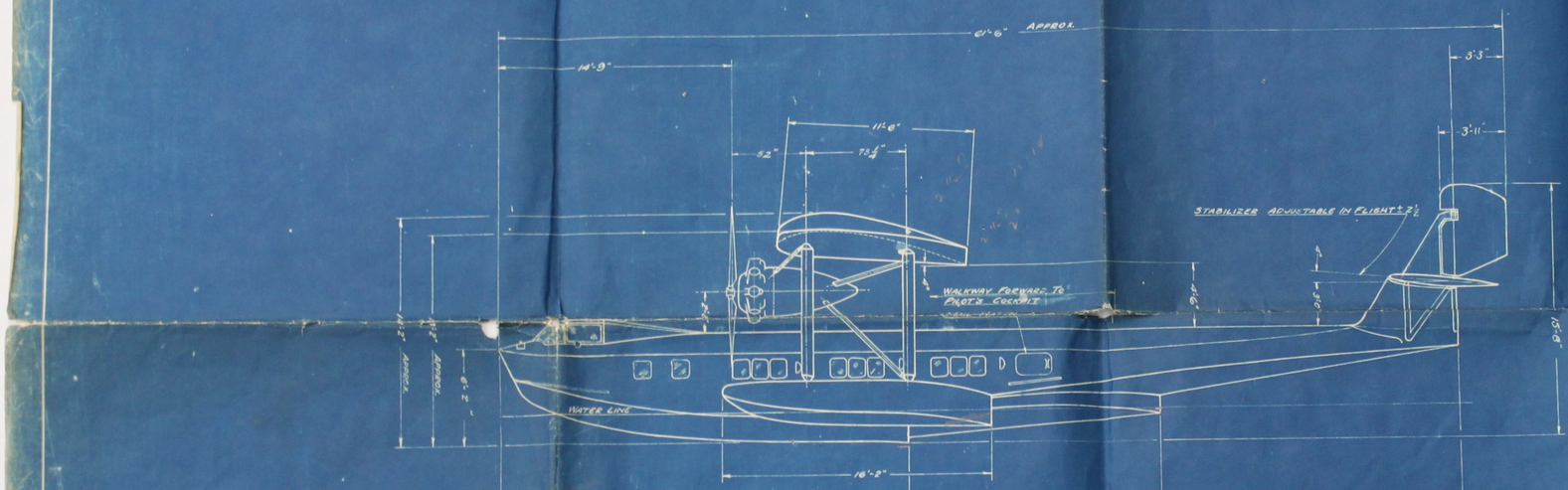
"THE COMMODORE"

MATERIAL	4 Ply Mah. 1/16 Gr.
SCALE	Feather Weight
DRAWN	Number 1
TRACED	
CHECKED	

CONSOLIDATED FLYING BOAT - MODEL 16
CONSOLIDATED AIRCRAFT CORP.

16A001





ENGINEERING DATA

AREAS

WINGS-		
TOTAL WING AREA INCL. AILERONS	1110	SQ. FT.
CENTER SECTION	207	"
WING PANELS (2) INCL. AILERONS	903	"
TOTAL AILERON AREA AFT OF HINGE	112	"
TAIL SURFACES-		
TOTAL VERTICAL AREA	63.95	"
CENTER LOWER FIN	14.75	"
LOWER FIN (2)	2.03	"
RUDDERS (2) INCL. BALANCE	44.08	"
BALANCE OF EACH RUDDER	3.3	"
TOTAL HORIZONTAL AREA	185.5	"
STABILIZER	81.	"
ELEVATOR	84.5	"

WEIGHTS

USEFUL LOAD-		
CREW- PILOT, MECHANIC & RADIO OPERATOR	510	LBS.
GAS & OIL	3175	"
RADIO	140	"
PAY LOAD-		
PASSENGERS (22) @ 170 LBS. EACH	4340	"
MAIL + BAGGAGE	2760	"
	460	"
WEIGHT EMPTY	10448	"
STRUCTURE	3930	"
POWER PLANT COMPLETE	2784	"
OTHER EQUIPMENT	2135	"
GROSS WEIGHT	17,600	LBS.

PERFORMANCE

FULL SPEED	188	M.P.H.
CRUISING SPEED	150	M.P.H.
RATE OF CLIMB AT SEA LEVEL	765	FT. PER MIN.
SERVICE CEILING	18,800	FT.

POWER PLANT

2 CRAFT-WRIGHTLY "HORNET" ENGINES
TOTAL HORSEPOWER 880 H.P.

MISCELLANEOUS

WING AIRFOIL	GÖTTINGEN 398	
CHORD	110'-6.2"	
INCIDENCE	+1°-6'	
DIHEDRAL	2°	
AILERON		
TAIL AIRFOIL (FIN & RUDDER)	GÖTTINGEN 387	
FIN SECTION	12%	
INCIDENCE OF STABILIZER	1°-4'	
STABILIZER ADJUSTMENT	3½° UP TO 4° DOWN	

"THE COMMODORE"

ENGINEER	L. Talbert 12-57
DRAFTSMAN	
CHIEF DRAFTSMAN	
CHIEF ENGINEER	
Model 19-AA	
Number 16	

COMMERCIAL FLYING BOAT - MODEL 16
ON GOLDBERG AIRCRAFT CORP. DWG. NO. 16A000

RADIO

WASH ROOM

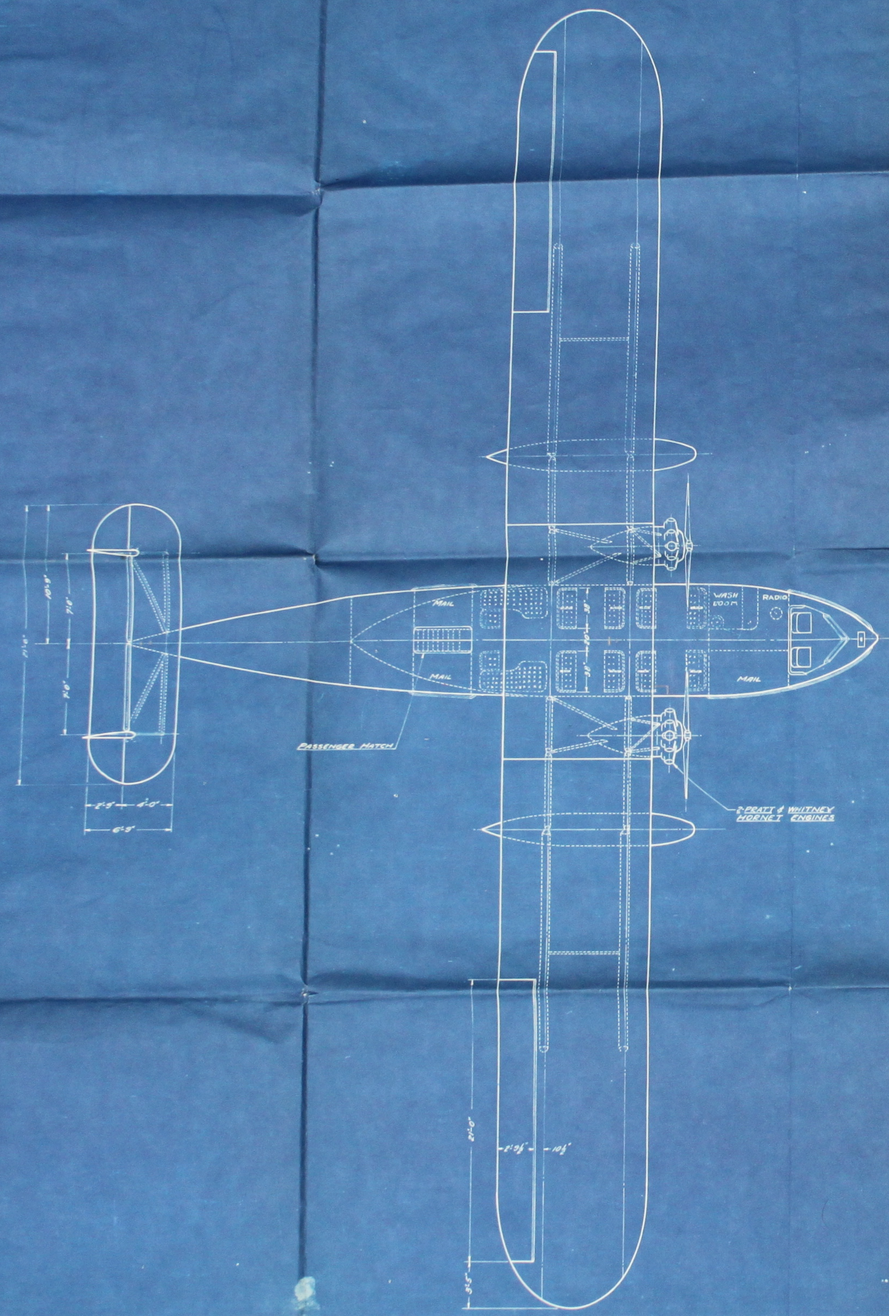
MAIL

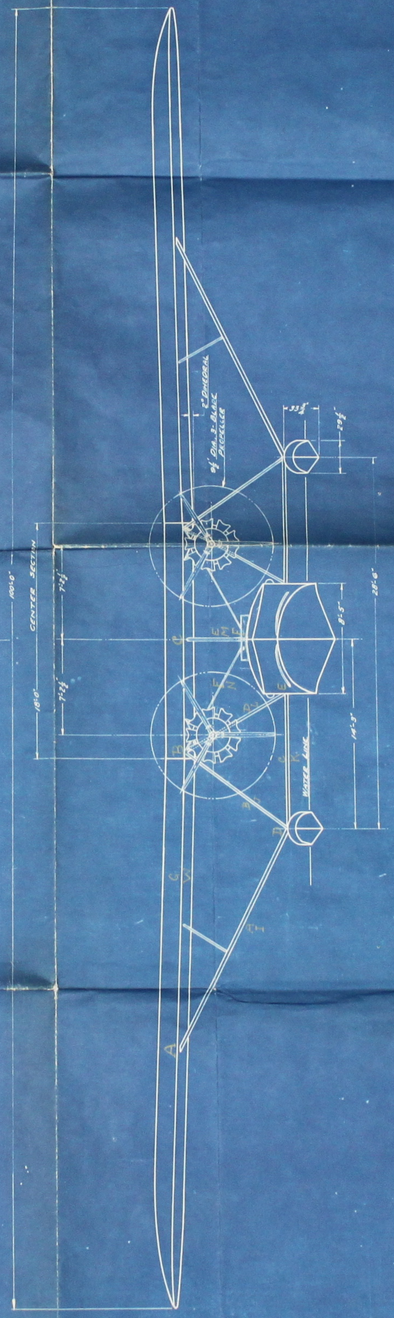
MAIL

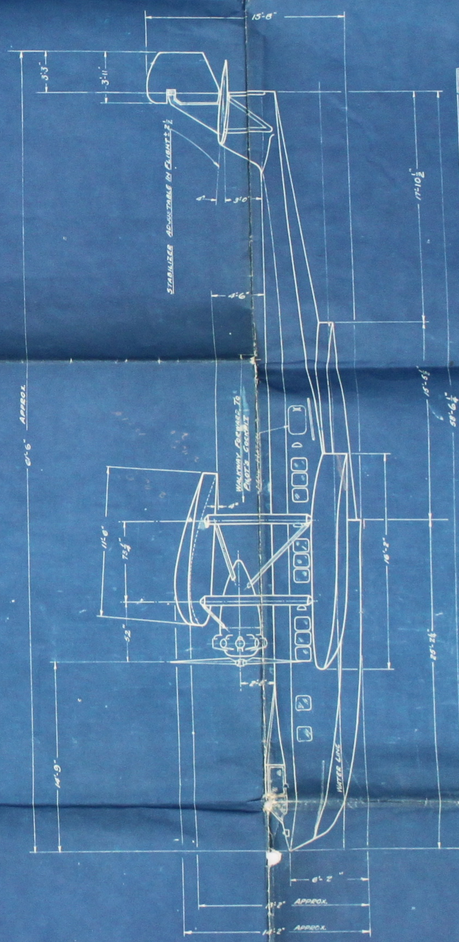
MAIL

2 PRATT & WHITNEY ENGINES

PASSENGER HATCH







ENGINEERING DATA

AREAS

WING-		
TOTAL WING AREA INCL. AILERONS	1110	SQ. FT.
CENTER SECTION	207	
WING PANELS (2) INCL. AILERONS	748	
TOTAL AILERON AREA AFT OF HINGE	115	
TAIL SURFACES-		
TOTAL VERTICAL AREA	63.25	
CENTER LOWER FIN	14.75	
UPPER FIN (2)	23.00	
RUDDERS (2) INCL. BALANCE	46.5	
BALANCE ON EACH RUDDER	3.3	
TOTAL HORIZONTAL AREA	185.5	
STABILIZER	81	
ELEVATOR	64.5	

WEIGHTS

USEFUL LOAD-	7191	LBS.
CREW- PILOT, MECHANIC & RADIO OPERATOR	710	
FUEL & OIL	3175	
RADIO	180	
PAY LOAD-	4346	
PASSENGERS (22) @ 170 LBS. EACH	3740	
MAIL + BAGGAGE	606	
WEIGHT EMPTY	10418	
STRUCTURE	3830	
POWER PLANT COMPLETE	3784	
FIXED EQUIPMENT	2134	
GROSS WEIGHT	17600	LBS.

PERFORMANCE

FULL SPEED	152	M.P.H.
CRUISING SPEED	109	M.P.H.
RATE OF CLIMB AT SEA LEVEL	765	FT. PER MIN.
SERVICE CEILING	18,200	FT.

POWER PLANT

2 PRATT & WHITNEY "HORNET" ENGINES		
TOTAL HORSEPOWER	1800	H.P.

MISCELLANEOUS

WING AIRFOIL	GÖTTINGEN "398"
CHORD	168-6.5
INCIDENCE	+ 2°
DIHEDRAL	4°
AILERON	CREASE TYPE
TAIL AIRFOIL (FIN & RUDDER)	207 GÖTTINGEN
FIN SETTING	0°
INCIDENCE OF STABILIZER	+ 5°
STABILIZER ADJUSTMENT	5° UP TO 2° DOWN

"THE COMMODORE"

MATERIAL	CONSTRUCTION	L. Dwg. No. 16-51
SPEC. & CLASS NO.		
HEAT TREAT		Finish symbols
FINISH		otherwise
DRAWING COMMERCIAL FLYING BOAT - MODEL 16		
CONSOLIDATED AIRCRAFT CORP.		16A001